

elements,  $j$  identifies events being utilized by the person  $X$ ,  $E_{i,j}$  is the  $j$ th event of the  $i$ th element, providing information on the  $i$ th element,  $\tau_j$  is the duration for which event  $j$  is being utilized, and  $\omega_j$  is a weighting function to give weight or take away weight for a given event and having a range from 0 to 1.

44. The system of claim 43 wherein, the user is a television viewer having a television receiver, the events are television programs being viewed by the viewer, and the means for collecting comprises means for collecting data about the viewer's television program selections.

45. The system of claim 43 wherein, the means for collecting comprises means for collecting data about television programs selected in an EPG.

46. The system of claim 43 wherein, the user is an Internet user having an Internet terminal for accessing the Internet, the events are websites being visited by the Internet user, and the means for collecting comprises means for collecting data about the user's website selections.

#### REMARKS

Claims 1-46 are pending in the application. Claims 1, 2, 29, 30, 35, 39, and 42 are amended. Claims 2-8, 13, 24, 30-35, and 42 are objected to as being dependent upon a rejected claim, but it is indicated that they would be allowable if rewritten in independent form. Claims 2, 30, and 42 are rewritten in independent form and include all of the limitations of their respective independent claims 1, 29, and 40. Therefore allowance of claims 2, 30, and 42, and their respective dependent claims 3-8, 31-34, and 43-46 is

respectfully requested.

Claims 1, 9-12, 14-16, 18-21, and 25-27 are rejected under 35 U.S.C § 102 (e) as being anticipated by Williams at al. (US 5,977,964); and claims 17, 22, 23, 29, and 36-41 are rejected under 35 U.S.C § 103 (a) as being unpatentable over Williams. Applicant submits that all of the remaining claims currently pending in this application are patentably distinguishable over the cited references, and reconsideration and allowance of this application are respectfully requested.

Amended independent claim 1 includes, among other limitations, "iteratively integrating the collected user selections data with the statistical data and the psycho-demographic information about the user that is based on probability-based character traits," and amended independent claims 29 and 40 include, among other limitations, "integrating each of the collected unique characteristic segments with assigned probabilities derived from the general populous statistical data and with the psycho-demographic information about the user that is based on probability-based character traits."

However, Williams does not disclose, nor does it suggest the above limitations. The system of Williams configures a system based on a user's monitored system interaction and preferred system access times and updates a user profile corresponding to the user based at least in part on the monitored user interaction with the system. A system controller determines which of a plurality of system users is currently using the system. In doing so, the "system controller 104 identifies whether the information of the behavior log matches that of the data for any of the known system users. In one embodiment, system controller 104 calculates a **user metric** for the information in the behavior log and the current system settings as well as for each of the known system users. If

there is greater than a predetermined probability that the information in the behavior log matches the user profile of one of the known users, system controller 104 determines that a match has been made and, in step 308, configures system 100 in accordance with the user preference information of the user profile database 800." (Col. 9, lines 48-59, cited by the Examiner).

Additionally, "[t]o generate the metric, in one embodiment of the present invention, each of the configurable options is given a different predetermined weight and the weighted values are added together. By way of example, the television channel being viewed may be given a higher weight than the volume of the channel. This sum of weighted values is compared to a predetermined value and, if the sum exceeds the predetermined value, then the system controller 104 considers a match to be found." (Col. 10, lines 6-14, cited by the Examiner). The user profile of Williams includes "information (user preference information) associated with each of the different media supported in system 100. For example, in the illustrated embodiment of FIG. 8, user profile database 800 includes user preference information related to a television/monitor, a personal computer and audio components. As depicted, for television/monitor 102, user profile database 800 tracks user preferred channels, volume, program genre information, whether to block content information, and whether supplemental programming is requested with a particular channel." (Col. 5, lines 52-64).

"[A]dditional user preferences which may be stored in user profile database 800 include video controls such as sharpness, contrast, and brightness, audio controls such as surround sound processing types . . . , various surround sound processing modes . . . , stereophonic mode, monophonic mode, closed captioning on/off, and preferred display layouts (e.g., window sizes and locations). Additional preference information may also be stored in user

profile database 800, including top ten favorite shows, most frequently watched/listened to source(s), most frequently watched/listened to channel(s)/station(s) per source, typical watching/listening periods, favorite genre(s), favorite commercial(s), favorite actor(s)/actress(es)." (Col. 6, line 52 to col. 7, line 2).

Applicant is unable to find any teaching or suggestion in Williams for "iteratively integrating the collected user selections data with the statistical data and the psycho-demographic information about the user that is based on probability-based character traits," as required by independent claim 1, or "integrating each of the collected unique characteristic segments with assigned probabilities derived from the general populous statistical data and with the psycho-demographic information about the user that is based on probability-based character traits," as required by independent claims 29 and 40. For example, statistical data may include statistical data about a typical person who watches Super Bowl. Based on user activity and this statistical data, probability-based character traits are then determined. See page 3, line 31 to page 4, line 9, and page 6, lines 18-30 of the specification.

As a result, independent claims 1, 29, and 40 are not anticipated by Williams. Furthermore, claims 17, 22, 23, 29, and 36-41 are not obvious over Williams. In short, the independent claims 1, 29, and 40 define a novel and unobvious invention over the cited references. Remaining dependent claims 9-20, and 35-39 are all dependent from independent claims 1 and 29 and therefore include all the limitations of claims 1 and 29, and additional limitations therein. Accordingly, these claims are also allowable over the cited references, as being dependent from allowable independent claims 1 and 29, and for the additional limitations

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they include therein.


In view of the foregoing remarks, it is respectfully submitted that this application is now in condition for allowance, and accordingly, reconsideration and allowance are respectfully requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

Respectfully submitted,

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Version with markings to show changes made

Please amend claims 1, 2, 29, 30, 35, 39, and 42 as follows:

1. (Amended) A method of determining a profile of a user based on statistical data and psycho-demographic information about the user, the method comprising the steps of:

collecting data about user selections;  
iteratively integrating the collected user selections data with the statistical data and the psycho-demographic information about the user that is based on probability-based character traits;  
and

inferring the profile of the user from the integrated information.

2. (Amended) The A method of claim 1 for determining a profile of a user based on statistical data and psycho-demographic information about the user, the method comprising the steps of:

collecting data about user selections;  
iteratively integrating the collected selections data with the statistical data and the psycho-demographic information about the user; and

inferring the profile of the user from the integrated information wherein, the step of inferring the profile (UP) is determined by the equation:

$$UP(X) = \{\rho[E_i(X)]\}$$

where  $E_i(x)$  is the  $i$ th element of the character trait of a real person  $X$ , and  $\rho[E_i(X)]$  is the probability of the person  $X$  having a specific character trait.

29. (Amended) A method of inferring a preference profile of a user utilizing general populous statistical data and psycho-demographic information about the user, the profile having a plurality of

unique characteristic segments, the method comprising the steps of:

monitoring user selections

iteratively collecting data about the user selections with respect to each of the unique characteristic segments;

iteratively assigning probabilities to each of the collected unique characteristic segments;

integrating each of the collected unique characteristic segments with assigned probabilities derived from the general populous statistical data and with the psycho-demographic information about the user that is based on probability-based character traits; and

inferring the profile of the user from the integrated information.

30. (Amended) The A method of claim 29 for inferring a preference profile of a user utilizing general populous statistical data and psycho-demographic information about the user, the profile having a plurality of unique characteristic segments, the method comprising the steps of:

monitoring user selections

iteratively collecting data about the user selections with respect to each of the unique characteristic segments;

iteratively assigning probabilities to each of the collected unique characteristic segments;

integrating each of the collected unique characteristic segments with assigned probabilities derived from the general populous statistical data and with the psycho-demographic information about the user; and

inferring the profile of the user from the integrated information wherein, the step of inferring the profile (UP) is determined by the equation:

$$UP(X) = \{p[E_i(X)]\}$$

where  $E_i(x)$  is the  $i$ th element of the character trait of a real person  $X$ , and  $p[E_i(X)]$  is the probability of the person  $X$  having a specific character trait.

35. (Amended) The method of claim 29 further comprising the steps of:

~~receding~~ recording a predetermine number of inconsistencies of the user selections;

separating the user profile into two consistent sets, a first user profile and a second user profile, while continuing collecting data for the user profile;

monitoring the time-of-day for each collected data for the first and second user profiles;

inferring that the first user profile and the second user profile are for different individuals if over a predetermined period the time-of-day of the first user profile data is grouped together and the time-of-day of the second user profile data is grouped together.

39. (Amended) A system for inferring preference profile of a user utilizing general populous statistical data and psycho-demographic information about the user comprising:

a plurality of unique characteristic segments included in the profile;

means for monitoring user selections;

means for iteratively collecting data about the user selections with respect to each of the unique characteristic segments;

means for iteratively assigning probabilities to each of the collected unique characteristic segments;



means for integrating each of the collected unique characteristic segments with assigned probabilities derived from the general populous statistical data and with the psycho-demographic information about the user that is based on probability-based character traits; and

means for inferring the profile of the user from the integrated information.

42. (Amended) The A system of claim 40 for inferring preference profile of a user utilizing general populous statistical data and psycho-demographic information about the user comprising:

a plurality of unique characteristic segments included in the profile;

means for monitoring user selections;

means for iteratively collecting data about the user selections with respect to each of the unique characteristic segments;

means for iteratively assigning probabilities to each of the collected unique characteristic segments;

means for integrating each of the collected unique characteristic segments with assigned probabilities derived from the general populous statistical data and with the psycho-demographic information about the user; and

means for inferring the profile of the user from the integrated information wherein, means for inferring the profile

(UP) is a microprocessor computing the equation:

$$UP(X) = \{p[E_i(X)]\}$$

where  $E_i(x)$  is the  $i$ th element of the character trait of a real person  $X$ , and  $p[E_i(X)]$  is the probability of the person  $X$  having a specific character trait.